MORE MICROLEPIDOPTERA FROM GLAMORGAN

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Introduction by AME

DAVID SLADE published a valuable list of the Microlepidoptera he had taken in South Wales in 1995, recording four species new to Wales and over 30 new to Glamorgan. In his paper he stated that "Light-trapping . . . is generally accepted as the main method for collecting Lepidoptera" (*Ent. Rec.* **109**: 31-39).

He had shown me the typescript of his paper and I had advised him of the numbers new to Wales and Glamorgan respectively, but he later added another species which was also new to Wales. Accordingly, I contributed a note (*Ibid.* **109**: 114) in which I congratulated him on his fifth new species and added that although he was correct in his statement about light-trapping, the trap was a poor substitute for fieldwork and that I would expect to be able to add at least 50 species to his list on a single day in late October. David eagerly took up the challenge and kindly invited me to stay, 20 October being selected for the attempt.

When I made my prediction, I was not to know that 1997 would turn out to be possibly the worst year in living memory for leaf-mines. The cold weather in June probably reduced the number of adults that emerged and inhibited the mating and egg-laying activity of those that did so, with the result that many common species were virtually absent, though, strangely, a few seemed unaffected. The same story is told by microlepidopterists throughout England. It was therefore with grave doubts of success that I drove down to Cardiff on 19 October.

David had never attempted recording from leaf-mines before, but was very quick to learn. Since the achievements of the day were a joint effort, he now joins me in the authorship of this paper.

The fieldwork, by AME and DJS

The 19 and 21 October were beautiful autumn days, but the 20th was windy and wet, a drizzle in the morning but a downpour with a strong, cold wind in the afternoon. This failed to dampen our enthusiasm, but certainly added to the difficulty of recording. We visited four areas in the western outskirts of Cardiff. The first was Plymouth Great Wood, not named on the OS map (see below for map reference). We entered near the east end, where there was plenty of oak, beech, sycamore, maple and hazel, with a lesser amount of sallow, blackthorn and hawthorn. The ground flora included brambles, rosebay willow-herb and St John's-wort. Then we drove to the western end of the wood, where in and around a narrow strip beside the River Ely we found alder and grey alder, crack willow, Norway maple, meadowsweet on the riverbank and a single, almost leafless elm sapling in a hedgerow, the only elm we saw all day. We then adjourned for lunch at the Plymouth Arms at St. Fagans, where the car park afforded what was possibly the best record of the day, *Parornix fagivora* (Frey) on beech. In the afternoon we visited Llandaff Playing Fields, which

are surrounded by mixed woodland trees such as oak, hawthorn, alder, maple, sallow and beech, with some patches of rush on the ground beneath. There were also two or three silver birches and a single rose. The wind and rain made recording difficult.

The paucity of leaf-mines is illustrated by the day's findings on oak which we searched more assiduously than any other foodplant. From the list that follows it will be seen that the usually abundant nepticulids and gracillariids were found only singly or as "a few" (five or under), and several common moths such as the *Caloptilia* spp., *Bucculatrix ulmella* Zell. and *Ancylis mitterbacheriana* ([D.&S.]) were not seen at all. Only *Phyllonorycter lautella* (Zell.) was reasonably plentiful on seedlings that were regenerating freely. On other foodplants, too, usually ubiquitous species such as *Ectoedemia atricollis* (Stt.) and *Stigmella hybnerella* (Hb.) were not found on hawthorn, nor *S. hemargyrella* (Koll.) on beech. We collected the few *Phyllonorycter* mines we could find on sallow, but bred only *P. hilarella* (Zett.) in the spring. Was Cardiff or 1997 responsible?

In spite of these limitations, we achieved our objective. We recorded 64 species, well below expectation for the time of year, yet these included one new to Wales. nine new to Glamorgan and 61 that were not on David's list made in 1995. Had there been an opportunity to search apple, rowan, poplar, small-leaved lime or adequate stands of elm and birch, especially downy birch, our score would have been higher. That David had recorded at light only three of the 64 species we saw that day makes the point that for Microlepidoptera fieldwork is far superior.

List of species recorded

Status, indicated by asterisks:
* An addition to DJS' list in *Ent. Rec.* **109**: 31-39.
** New to Glamorgan (VC41)
*** New to Wales

Localities, indicated by a number after the name:
1. Plymouth Great Wood, centre and eastern end (ST1376)
2. Plymouth Great Wood, western end and vicinity (ST120770)
3. Car park of the Plymouth Arms, St. Fagans (ST122722)
4. Wooded perimeter of Llandaff Playing Fields (ST1478-1479)

Degree of abundance, indicated by a letter after the locality number:
No letter = only one observed
F = few (2-5 observed)
S = several (6-15 observed)
M = many (16+ observed)

NEPTICULIDAE
Ectoedemia albifasciella (Hein.) *; 1; F
E. subbimaculella (Haw.) **; 1; F
E. heringi (Toll) **; 1; F
Formoria septembrella (Stt.) **; 1, 2; F
Stigmella aurella (Fabr.) *; 1, 4; S
S. splendidissimella (H.-S.) *; 1, 4; S
S. ulmariae (Wocke) **; 2. Second Welsh record; new to South Wales
S. lemniscella (Zell.) (*marginecolella* (Stt.)) *; 2
S. plagicolella (Stt.) *; 1; F
S. salicis (Stt.) *; 4; F
S. obliquella (Hein.) **; 2; F. Second Welsh record
S. floslactella (Haw.) *; 1; S
S. tityrella (Stt.) *;1, 3; M
S. perpygmaeella (Doubl.) *; 1, 4; S
S. atricapitella (Haw.) *; 4
S. ruficapitella (Haw.) *; 1; F
S. anomalella (Goeze) *; 4
S. oxyacanthella (Stt.) *; 1
S. crataegella (Klim.) *; 1, 4; S

S. microtheriella (Stt.) *; 1; M
S. glutinosae (Stt.) **; 2, 4; S
S. alnetella (Stt.) *; 2, 4; S

TISCHERIIDAE
Tischeria ekebladella (Bjerk.) *; 1; F
Emmetia marginea (Haw.) 1; F

INCURVARIIDAE
Incurvaria pectinea Haw. *; 1, 2; S

HELIOZELIDAE
Heliozela resplendella (Stt.) *; 2

LYONETIIDAE
Lyonetia clerkella (Linn.) *; 1, 3, 4; M

BUCCULATRICIDAE
Bucculatrix cidarella Zell. *; 4; F

GRACILLARIIDAE
Caloptilia stigmatella (Far.) 4
C. syringella (Fabr.) *; 1; M
Parornix betulae Stt.) *; 4
P. fagivora (Frey) **; 3. Second Welsh record
P. anglicella (Stt.) *; 1, 4; S
P. devoniella (Stt.) *; 1; S
P. torquillella (Zell.) *; 1; F
P. finitimella (Zell.) *; 1; F
Phyllonorycter harrisella (Linn.) *; 1
P. heegeriella (Zell.) *; 1; F
P. quercifoliella (Zell.) *; 1
P. messaniella (Zell.) *; 1, 4; S
P. oxyacanthae (Frey) *; 1, 4; M
P. spinicolella (Zell.) *; 1; F
P. coryfoliella (Hb.) *; 1, 4; M
P. viminiella (Sirc.) *; 2; S
P. hilarella (Zett.) *; 1; F
P. maestingella (Müll.) *; 1, 3; M
P. coryli (Nic.) *; 1, 4; M
P. strigulatella (Zell.) *; 2; M
P. rajella (Linn.) *; 2, 4; M
P. lautella (Zell.) *; 1; M
P. ulmifoliella (Hb.) *; 4; F
P. stettinensis (Nic.) *; 4; S
P. froelichiella (Zell.) *; 4; S
P. nicellii (Stt.) *; 1; S
P. kleemannella (Fabr.) *; 1, 4; S
P. acerifoliella (Zell.) *; 1, 4; S
P. platanoidella (Joann.) ***; 2; S. Possibly common, since Norway maple is planted extensively and a few days later DJS found it abundantly at a site in the city.
P. geniculella (Rag.) *; 1, 4; S

YPONOMEUTIDAE
Swammerdamia pyrella (Vill.) *; 4

COLEOPHORIDAE
Coleophora lutipennella (Zell.) 1
C. alticolella Zell. *; 4; M

GELECHIIDAE
Teleiodes notatella (Hb.) *; 1

MOMPHIDAE
Mompha raschkiella (Zell.) **; 1; S

TORTRICIDAE
Acleris hastiana (Linn.) *; 3; adult

That is not the end of the story. AME reached Cardiff in the early afternoon of 19 October and there was time in the evening to visit the Tidal Sidings (ST2075-2175). This is an area of waste ground with scattered apple, hawthorn, sallow and sycamore and also a rich ground flora in the areas not bulldozed for development. We recorded 17 species, eight of which we did not see again on the 20th. One of these, *Caloptilia rufipennella* (Hb.), taken as a adult, was new to Glamorgan and South Wales. It is probably a recent colonist, since we saw plenty of sycamore but no sign of its cones on either day. If these records are added to those made the following day, we added ten species to the county list and 67 to David's list.

The eight species not seen on the 20th are as follows.

GRACILLARIIDAE
Caloptilia rufipennella (Hb.) **; adult
Phyllonorycter cydoniella ([D.&S.]) *; S

COLEOPHORIDAE
Coleophora spinella (Schrank) *; F
C. albitarsella Zell. *
C. discordella Zell.
C. argentula (Steph.) M

TORTRICIDAE
Cochylis roseana (Haw.)*
Endothenia gentianaeana (Hb.) *; M